

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
15 September 2005 (15.09.2005)

PCT

(10) International Publication Number
WO 2005/084427 A1

(51) International Patent Classification⁷: **A01K 67/027**,
C12N 15/62, A61K 39/00

(74) Agents: **MARTIN, Jean-Jacques**, et al.; Cabinet Regim-
beau, 20, rue de Chazelles, F-75847 Paris Cédex 17 (FR).

(21) International Application Number:
PCT/IB2005/000896

(22) International Filing Date: 4 March 2005 (04.03.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
04290589.3 4 March 2004 (04.03.2004) EP

(71) Applicant (for all designated States except US): **BIOPRO-
TEIN TECHNOLOGIES** [FR/FR]; 63-65 Boulevard
Masséna, F-75013 Paris (FR).

(72) Inventor: **COHEN, Jean** (deceased).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **SOLER, Eric**
[FR/FR]; 1, Rue Royale, F-78000 Versailles (FR).
HOUDEBINE, Louis-Marie [FR/FR]; 9, Allée Georges,
F-78530 Buc (FR). **SCHWARTZ-CORNIL, Isabelle**
[FR/FR]; 14 Rue Clémenceau, F-78350 Jouy en Josas
(FR). **FOURGEUX, Cynthia** [FR/FR]; 2 Villa de L'Epi
d'Or, F-78210 Saint Cyr L'école (FR). **PAREZ, Nathalie**
[FR/FR]; 3 Allée Clarck, F-94210 La Varenne (FR). **GAR-
BARG-CHENON, Antoine** [FR/FR]; 8, place Charles
Fillion, F-75017 Paris (FR).

(81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ,
TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA,
ZM, ZW.

(84) Designated States (unless otherwise indicated, for every
kind of regional protection available): ARIPO (BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,
FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO,
SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN,
GQ, GW, ML, MR, NE, SN, TD, TG).

Declaration under Rule 4.17:

— of inventorship (Rule 4.17(iv)) for US only

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.

(54) Title: PREPARATION OF RECOMBINANT ROTAVIRUS PROTEINS IN MILK OF TRANSGENIC NON HUMAN MAM-
MALS

(57) Abstract: The present invention relates to a non-human transgenic mammal whose genome comprises : i) a first transgene com-
prising a mammary gland specific transcriptional control region operably linked to cDNA encoding a rotavirus protein selected from
VP2, VP4, VP6 and VP7 and wherein said cDNA comprises a secretion signal sequence; ii) at least a second transgene comprising a
mammary gland specific transcriptional control region operably linked to cDNA encoding another said rotavirus protein and wherein
said cDNA comprises a secretion signal sequence; and wherein said rotavirus proteins are secreted separately and auto-assembled
in milk in rotavirus like particles (VLP) or aggregates of said rotavirus proteins.



WO 2005/084427 A1